Application No.:

09/989,561

Amendment Dated:

November 22, 2006 Reply to Office Action of: August 24, 2006

# **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

- (Currently Amended) A method for converting inputted speech 1. toinputting a text, comprising:
  - (a) a step of entering for inputting a sentence by speech;
- a step of recognizing a part of the entered speech, and determiningfor (b) preparing word-string candidates of word strings as a unitwhich consist of one to several words from the recognized-part of the enteredinputted sentence by performing speech recognition processing;
  - a step offor displaying the prepared candidates; and (c)
- (d) a step of allowing a user to select from for selecting from among the displayed candidates by a user,

wherein the candidate preparing step (b), the displaying step (c) and the selecting step (d) are repeated to recognize the sentence for each successive wordstring, and

wherein a remaining part of the entered speech is recognized by sequentially repeating the candidates candidates determining prepared in the candidate preparing step (b), the displaying step (c), and the selecting step (d), in a unit of the word string from a beginning of the entered speech are obtained by repetition of an extension processing step (b1) for performing an extension of words, the extension processing step (b1) determining whether to link the words based on a word-based linkage probability obtained by a language model.

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2. (Cancelled)

(Currently Amended) A method for converting inputted speech 3. to test according to claim 221, wherein saidthe candidate determining preparing step (b) further having including a process to update thean arrangement of the candidates dueaccording to an acoustic score after the repetition of the extension processing step (b1).

- 4. (Currently Amended) A method for converting inputted speech to inputting a text according to claim 31, wherein saidthe repetition of the extension process step (b1) is ended by reaching of a number of phrasethe word-string candidates subjected to saidthe extension process by a predetermined number as counted from a top rank in a language score.
- 5. (Currently Amended) An apparatus for converting inputted speech toinputting a text, comprising:

an input section for entering inputting a sentence by speech;

a speechan utterance pre-processing section for extracting a feature amount of the entered speech inputted from saidthe input section;

a word candidate preparing section for preparing a-following word-string candidates from a fixed word-string by using a language model;

a word-string preparing section for preparing <u>a</u>word-string candidates as a unitwhich consists of one to several words based on recognizing a part of the entered speech using from the extracted feature amount corresponding to the part of the entered speech and from the word-string candidate by using the language model;

a display section for displaying the prepared word-string candidates;

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an operating section for a user to select one of from among the word-string candidates being displayed, the selected word-string candidate forming the fixed word-string; and

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a candidate-preparation instructing section for instructing saidthe word candidate preparing section to prepare the following word candidate from the fixed word-string candidate selected by saidthe operating section,

wherein saidthe word-string preparing section sequentially repeats preparation of said word string candidates for a remaining part of the entered speech using said following word candidate, in a unit of the word string from a beginning of the entered speech to recognize the remaining part of the entered speechprepared in the wordstring preparing section are obtained by repetition of an extension process for performing an extension of words, the extension process determining whether to link the words based on a word-based linkage probability obtained by the language model.

#### 6. - 8. (Cancelled)

(Currently Amended) An apparatus for converting inputted speech toinputting a text according to claim 5, wherein saidthe apparatus is included in a cellular telephone.

## 10. - 12. (Cancelled)

- 13. (Currently Amended) A storage—computer-readable medium tangibly embodying a encoded with a data structure which causes a computer to perform a method for inputting a test comprising:program of instructions executable by mchine to perform method steps for converting inputted speech to text, said method repeating in-order:
  - a step of entering for inputting a sentence by speech; (a)
- a step of-recognizing a part of the entered-speech, and determining for (b) preparing word-string candidates of word strings as a unitwhich consist of one to

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several words from the recognized part of the entered speechinputted sentence by performing speech recognition processing;

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- (c) a step offor displaying the prepared candidates; and
- a step of allowing a user to select from for selecting from among the (d) displayed candidates by a user; and

wherein the candidate preparing step (b), the displaying step (c) and the selecting step (d) are repeated to recognize the sentence for each successive wordstring, and

wherein a remaining part of the entered speech is recognized by sequentially repeating saidthe candidate candidates determining prepared in the candidate preparing step (b), said displaying step (c) and said selecting step (d), in a unit of the word string from a beginning of the entered speech are obtained by repetition of an extension processing step (b1) for performing an extension of words, the extension processing step (b1) determining whether to link the words based on a word-based linkage probability obtained by a language model.

### 14. - 16. (Cancelled)

- 17. (Currently Amended) A computer program product tangibly embodying a program of instructions executable by machine encoded with a data structure which causes a computer to perform a method steps for converting inputted speech to text, said-method repeating in orderinputting a text comprising:
  - a step of entering for inputting a sentence by speech; (a)
- a step of recognizing a part of the entered speech, and determining for (b) preparing word-string candidates of word strings as a unitwhich consist of one to several words from the recognized part of the enteredinputted sentence by performing speech recognition processing;

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(c) a step of for displaying the prepared candidates; and

(d) a step of allowing a user to select from for selecting from among the

displayed candidates by a user;

wherein the candidate preparing step (b), the displaying step (c) and the

selecting step (d) are repeated to recognize the sentence for each successive word-

string, and

wherein a remaining part of the entered speech is recognized by sequentially

repeating said candidate determiningthe candidates prepared in the candidate

preparing step (b), said displaying step (c) and said selecting step (d), in a unit of the

word-string from a beginning of the entered speech are obtained by repetition of an

extension processing step (b1) for performing an extension of words, the extension

processing step (b1) determining whether to link the words based on a word-based

linkage probability obtained by a language model.

18. - 22. (Cancelled)

23. (New) A method for inputting a text according to claim 1, wherein, in

the step of repeating the candidate preparing step (b), the displaying step (c) and the

selecting step (d), when a word-string is selected in advance, the candidate preparing

step (b) determines the word-string as the candidate based on either language

information or acoustic information.

24. (New) A method for inputting a text according to claim 1, wherein the

extension processing step (b1) determines to link the words when a judgment is made

for linking the words and not to link the words if the judgment is made for not linking

the words.

25. (New) A method for inputting a text according to claim 1, wherein the

extension processing step (b1) prepares longer word-string candidates when it is

determined to link the words than if it is determined not to link the words.

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26. (New) An apparatus for inputting a text according to claim 5, where the extension process determines to link the words when a judgment is made for linking the words and not to link the words if the judgment is made for not linking the words.

- 27. (New) An apparatus for inputting a text according to claim 5, wherein the extension processing prepares longer word-string candidates when it is determined to link the words than if it is determined not to link the words.
- 28. (New) A computer-readable medium according to claim 13, wherein the extension processing step (b1) determines to link the words when a judgment is made for linking the words and not to link the words if the judgment is made for not linking the words.
- 29. (New) A computer-readable medium according to claim 13, wherein the extension processing step (b1) prepares longer word-string candidates when it is determined to link the words than if it is determined not to link the words.
- 30. (New) A computer program product according to claim 17, wherein the extension processing step (b1) determines to link the words when a judgment is made for linking the words and not to link the words if the judgment is made for not linking the words.
- (New) A computer program product according to claim 17, wherein the 31. extension processing step (b1) prepares longer word-string candidates when it is determined to link the words than if it is determined not to link the words.